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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

060258-0282821

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on _____

Signature _____

Typed or printed name _____

Application Number

09/940,577

Filed

August 29, 2001

First Named Inventor

SOININEN et al.

Art Unit

2155

Examiner

L. WANG

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

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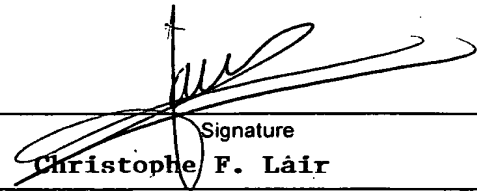
attorney or agent of record.

Registration number 54248

☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____


Signature
Christophe F. Lair

Typed or printed name

(703) 770-7797

Telephone number

March 27, 2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

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*Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Attorney Docket: 060258-0282821
Client Reference: 2990421US/Ä/mo

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:

Confirmation Number: 5013

SOININEN ET AL.

Application No.: 09/940,577

Group Art Unit: 2155

Filed: August 29, 2001

Examiner: Wang, Liang Che A.

Title: IP ROUTING OPTIMIZATION IN AN ACCESS NETWORK

March 27, 2006
(March 25, 2006 – Saturday)

ATTACHMENT SHEETS TO PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Final Office Action dated November 25, 2005, Appellants hereby request that a panel of examiners formally review the legal and factual basis of the rejections in the above-identified application prior to the filing of an appeal brief. This request is being concurrently filed with a Notice of Appeal. The review is requested for the reasons provided in the Remarks beginning below. A total of 4 pages are provided.

Appellants assert that the outstanding rejection is clearly improper based both upon errors in facts and the omission of essential elements required to establish a *prima facie* rejection (*i.e.*, the prior art reference fails to disclose, teach or suggest all the recited claim features).

Appellants are appealing the rejection of claims 1-4, 10, 21, 22 and 35 under 35 U.S.C. §102(e) as being unpatentable over Leung (U.S. Patent No. 6,195,705).

The appealed rejection is improper because a *prima facie* case of anticipation has not been established as the relied upon reference fails to disclose, teach or suggest all of the features recited in combination in the rejected claims. For example, the cited prior art, analyzed individually or in combination, fails to disclose, teach or suggest the claimed method (independent claim 1), device (independent claim 10), access node (independent

claim 21), or packet radio support node (independent claim 35) as claimed in association with **the checking of whether there is a second mobility entity to which the first access node can or preferably should establish a connection as an alternative for a first mobility entity, the opening of a new connection from the first access node to the second mobility entity if the second mobility entity is available, and the initiating of macro mobility management registration**, as recited in the rejected claims.

As explained in the Remarks section of the Amendment dated January 13, 2005, the appealed rejection is based on an erroneous interpretation of the different elements (*e.g.*, home agent HA1, HA1, foreign agent, virtual home agent HAV, and router R1) of Leung. Leung merely discloses a method and apparatus for automatically backing up a home agent or a foreign agent in mobile IP. (*See* col. 3, lines 64-66 of Leung). Leung employs a hot standby router protocol extended with a synchronization of the mobility tables between an active mobility agent and a standby mobility agent that backs up the active mobility agent. (*See* col. 3, lines 66-67 and col. 4, line 1 of Leung). Leung further discloses that the standby mobility agent can take the place of the active mobility agent immediately when it is predetermined that the active mobility agent should be replaced. (*See* col. 4, lines 17-39 of Leung).

However, contrary to what is asserted in the Office Action, items 204 and 206 in Figure 2B of Leung are not access nodes of an access system but merely routers that are provided with home agent functionality HA1 and HA2. In other words, items 204 and 206 are macro mobility management entities, such as mobile IP entities, rather than access nodes of the access system.

In Leung, the mobility agents HA1 and HA2 (elements 206 and 204, respectively, in Figure 2B) and the foreign agent 10 are mobile IP entities, *i.e.*, macro mobility level entities. The home agents HA1 and HA2 serve as home agent for two different groups of mobile nodes. Each home agent has a dedicated home agent address which is used by the mobile nodes assigned to this home agent. Groups 214 and 216 represent these groups of mobile nodes. Therefore, a mobile node, which belongs to, *e.g.*, the group 216 and has the home agent HA2 as a serving home agent, is associated with the home agent HA2, regardless of the location of the mobile node, *i.e.*, even if the mobile node is in the foreign network segment 14.

The Office Action identified item 202 as being the first mobility entity. Appellants respectfully disagree and point out that item 202 represents a virtual home agent HAV1. As such HAV1 is not a physical network entity or a router, but merely a facade that is adopted

and simulated by one of the physical routers (*see* col. 7, lines 37-49 of Leung). In other words, item 202 is not a separate network entity but merely represents a virtual home agent functionality residing in router 206. Similarly, item 208 represents another virtual home agent HAV2 which is emulated by router 204. Virtual home agents HAV1 and HAV2 are not alternative to each other. Instead, HAV1 and HAV2 are two different home agents that are used by different mobile nodes.

Appellants respectfully note that even if item 206 were considered to be an access node, there would be no connection from router 206 to the virtual home agent HAV1. On the contrary, item 202 (HAV1) is a virtual entity which resides in, and is emulated by, router 206.

The Office Action further alleged that router R1 corresponds to at least one first gateway node for interfacing the first part of the access system with external networks. The Office Action further alleged that router R1 has a first mobility entity (identified as element 202 of Leung) associated with the first gateway. However, the virtual home agent HAV1 (*i.e.*, item 202) is associated with, and resides in, router 206, which the Office Action already identified as being the first access node. The configuration asserted by the Office Action does not in any way correspond to the network architecture defined in the pending claims.

The Office Action further alleged that Leung discloses the step of establishing a session between one of said plurality of mobile nodes and a second party via said first access node and said first mobility entity by virtue of describing, in Figure 2B, a session that is established between item 202 and item 10 via item 206. However, as noted above, item 202 is a virtual home agent provided by item 206. Leung merely shows that a tunnel is provided between a foreign agent and a home agent, *i.e.*, between two mobile IP network entities. Thus, the communication between foreign agent 10 and home agent 1 (virtual home agent HAV1) is not a session between one of said plurality of mobile nodes and a second party via said first access node and said first mobility entity.

Furthermore, it is respectfully submitted that the Office Action, in section 4c, is mischaracterizing/mixing the terms “mobile entities” and “mobile nodes.” The Office Action alleged that Leung discloses that an access node can establish connection to at least two (first and second) mobility entities (such as first and second foreign agent), because Leung discloses that two mobile nodes can communicate with one another through home agent 206. However, in claim 1 first and second mobility entities are network entities for macro mobility management of mobile nodes; they are not mobile nodes. Further, the Office Action’s allegation that the mobility management entity in claim 1 corresponds to a mobile node in Leung is not in line with the Office Action’s allegation that the mobility entity in claim 1

corresponds to virtual home agent 202 (which is actually realized by the physical router 206 that is also considered to be an access node of the access system by the Examiner).

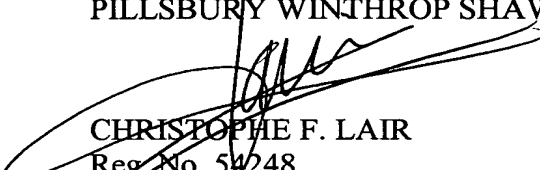
Moreover, according to Leung, router 204 starts to emulate the virtual home agent HAV1 202 only if the router 206 (in which the virtual home agent HAV1 resides and is originally emulated) fails. Thus, if the router 206 is (in accordance with the Examiner's reasoning) also considered to be the first access node, it is not clear as to how the failed item 206 would be able to perform any functions, and particularly the checking function recited in the pending claims.

Therefore, it is respectfully requested that the panel return a decision concurring with Appellants' position and eliminating the need to file an appeal brief because there are clear legal and/or factual deficiencies in the appealed rejections. Specifically, the subject matter recited in claims 1-4, 10, 21, 22 and 35 is not anticipated or rendered obvious from the teachings of Leung. Thus, all pending claims 1-4, 10, 21, 22 and 35 are allowable.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP



CHRISTOPHE F. LAIR
Reg. No. 54248
Tel. No. 703.770.7797
Fax No. 703.770.7901

CHM/CFL/smm
P.O. Box 10500
McLean, VA 22102
(703) 770-7900